Redesigning TESOL Courses with Digital Feedback: Reflections on Modifications and Suggestions for Future Exploration

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Abstract *Dynamic changes in society and technology place new demands on graduates, thus making it necessary for universities and educators to continually revise their degree programs and course curricula. These changes are particularly relevant in teacher education, as they can serve as role models for future teachers' reflective practice and ongoing professional growth. The current chapter therefore focuses on higher education courses taken by students who specialize in the field of Teaching English to Speakers of Other Languages (TESOL). It describes the curricular adjustments and innovations that were implemented in recent years, with an emphasis on systematically integrating digital feedback processes to improve learning and develop future teachers' competences. In that respect, the curriculum comprises courses such as an Introduction to English Language Teaching, Digital Learning and Teaching, Curriculum Planning and Materials Development, Classroom Observation and Practical Language Teaching, Academic Study Skills and the TESOL Research Colloquium. The paper reflects on the suitability of the modifications and suggests additional enhancements and explorations to be undertaken in the evolving landscape of TESOL education in the digital age.*

Keywords *TESOL; digital feedback; curriculum development; higher education; reflective practice*

1. Introduction

In the dynamic landscape of higher education, the regular revision of degree programs is crucial for ensuring quality and relevance for students. This is especially true for teacher education programs, where course designs not only serve as academic frameworks, but can turn into inspirations or blueprints for students' own future teaching. Hence, higher education courses not only equip students with content knowledge but also serve as models for effective teaching practices. Likewise, courses, their evaluations and continuous modifications can encourage student teachers' own reflective practices in their future

profession (regarding reflective practice cf. Brandenburg et al., 2017; Dewey, 1910; Farrell, 2021; 2022; Schön, 1983; Smith et al., 2017).

Within this general field, the present chapter zooms in on the TESOL program at Chemnitz University of Technology in Germany, which is devoted to developing students' competencies in Teaching English to Speakers of Other Languages (TESOL). The redesign of the TESOL courses was one essential part of the project "Pedagogical Guidance for Using Digital Feedback: Digital Feedback Map (DFM)"[1]. Therein, the focus was set on the meaningful integration of digital feedback in alignment with specific learning objectives.

This chapter will describe the aims and modifications of the courses, which will be followed by a reflection on their suitability and suggestions for potential revisions or additional explorations. The courses will be presented in the sequential order of the degree program by placing special emphasis on the implementation and evaluation of the courses in the Master program. By contrast, the realization of the Bachelor course was affected by short-hand changes of lecturer responsibilities and by the overall reform of the degree programs. The next section will therefore provide information on the program reform before the modified courses will be described in more detail.

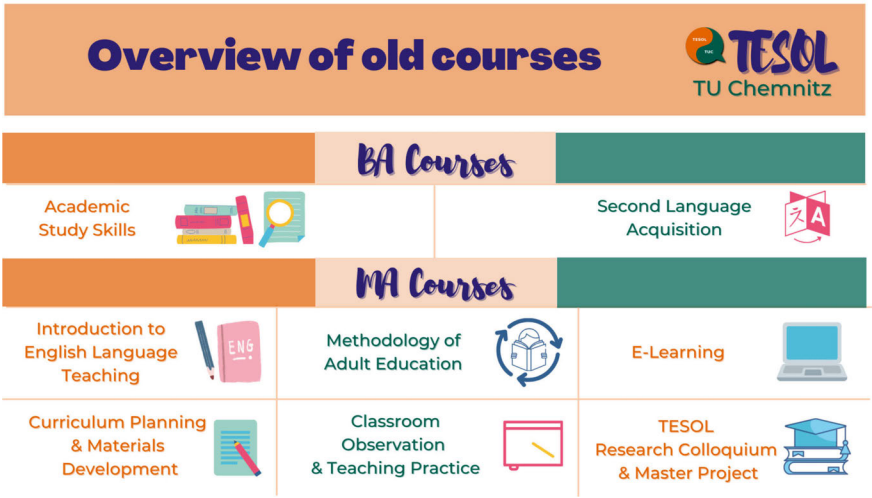
2. Reform of the Degree Programs

Regular revisions of degree programs are an essential mechanism for quality assurance in higher education. They are often driven by societal changes and economic needs, such as the anticipated job profiles of the graduates. Over the past years, evaluation surveys among students indicated a desire for a greater practical orientation of the courses to which several staff members have responded by modifying their teaching approaches. However, the official module descriptions still had a strong theoretical focus and therefore required revision. In addition, two new professors (TESOL and Linguistics) had joined the English department at Chemnitz University of Technology (TU Chemnitz) in the meantime. They place a strong focus on digital approaches, which resonates with current needs and graduate profiles. In a two-year long process (from 2021 to 2023), the Bachelor and Master programs of the English department were therefore revised thoroughly. The reformed programs for "English Studies" passed the university's official accreditation procedure in 2023 so that the new regulations took effect from winter term 2023/24 onwards.

Figure 1 and Figure 2 provide an overview of the old and new courses that are coordinated by the TESOL section at TU Chemnitz.

1 Funding for the project "Didaktische Orientierung für digitales Feedback (Pedagogical Guidance for Using Digital Feedback): Digital Feedback Map (DFM)" was provided by the *Stiftung Innovation in der Hochschullehre* (ID: FRFMM-181/2022, project duration 09/2022-11/2023).

Figure 1: Overview of Old BA and MA Courses (Winter Term 2020/21 until Summer Term 2023)



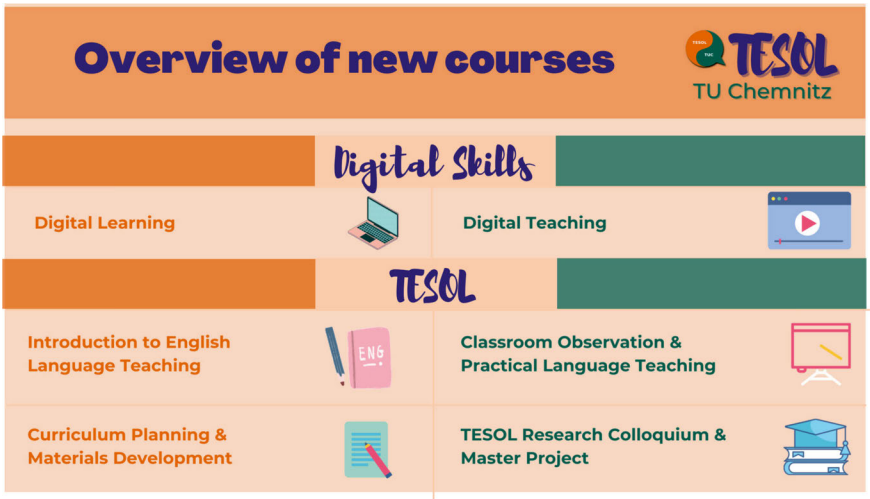
As shown in Figure 1, the TESOL section had previously coordinated two Bachelor courses and six Master courses. In the old regulations, the course "Introduction to English Language Teaching" was officially named "Intercultural Second Language Acquisition Theory", which, however, did not resonate with students' need for a greater practical orientation. Moreover, the official term caused confusion among the students, as the BA course "Second Language Acquisition" was named in a similar way.

Moreover, it should be noted that the "TESOL Research Colloquium" was not yet part of the official program documents even though most students choose TESOL as the focus of their Master thesis. This circumstance was caused by the lack of a TESOL professorship until 2020. When I took over this professorship, it was eventually possible to offer this much-needed colloquium.

Furthermore, with societal changes, notably the increasing need for schoolteachers in Germany, the official title of the course "Methodology of Adult Education" turned out to be too restrictive. In addition, a stronger focus on digital teaching skills was deemed necessary, not the least due to the popularity of online teaching as well as hybrid and blended learning since the Covid-19 pandemic. Since 2021, it was therefore executed as a methodology course in which students created digital materials or engaged in digital feedback processes.

Accordingly, several courses were renamed and restructured in the new degree programs. The responsibility of the "Academic Skills" module was shifted to the practical language program and anchored in both the BA and MA programs. It thus no longer appears in the overview depicted in Figure 2.

Figure 2: Overview of New MA Courses (from Winter Term 2023/24 onwards)



As can be seen, the six courses from the Master program have been clustered into two modules, "Digital Skills" and "TESOL". The "E-Learning" course has been renamed into "Digital Learning" to achieve greater consistency within the module. It also contains the new "Digital Teaching" course that builds on the reformed "Methodology" seminar. The "TESOL" courses finally carry the more fitting names, including the new "TESOL Research Colloquium".

Students will attend these seminars in the following order: In the first Master semester, they take the introductory courses on "English Language Teaching" and "Digital Learning". In the second semester, they will practically apply the knowledge within the protected space of the seminars on "Curriculum Planning & Materials Development" and "Digital Teaching". Afterwards, the students will complete an internship at an external institution, e.g. a school or language institute. This internship will be accompanied by the seminar on "Classroom Observation and Practical Language Teaching". Finally, in the fourth semester, the students will draft their Master thesis and attend the "TESOL Research Colloquium". In all these seminars, (digital) feedback will be utilized by the teacher and students to support their learning journey.

This reform of the degree programs mainly occurred when the DFM project was conducted. Consequently, the new seminars can directly benefit from the insights gained during the project, but they might also inspire improvements in additional courses. The changes will therefore be unveiled in the next sections.

3. Course "Study Skills"

The "Study Skills" course was offered to first-semester Bachelor's students enrolled in *English & American Studies* at Chemnitz University of Technology until winter term 2022/23, i.e. before the new degree program for *English Studies* set in. Due to unforeseen and short-dated changes in teaching responsibilities a few days before the start of the lecture pe-

riod, it was not possible to implement the redesigned course as part of the DFM project. However, at that point, the course had already been crafted conceptually and will therefore be described in this section. Its effectiveness still needs to be tested, though. By contrast, all other courses sketched in sections 4 to 9 were conducted and evaluated in winter term 2022/23 and summer term 2023.

3.1. Learning Objectives

In this foundational course, students will be enabled to

- take an active and self-organized role in their studies,
- retrieve academic literature and resources effectively as well as to assess them critically,
- cite resources adequately in subject-specific citation styles,
- structure an academic paper and practice paragraph writing.

3.2. Teaching Approach and Digital Feedback Procedures

Along with the learning goals, this first-semester course for undergraduate students is divided into four sections: Orientation and Self-Organization, Literature, Citation, and Writing.

In the **Orientation and Self-Organization** section, students learn about (a) the basics of the institution, including how to access university resources and facilities, (b) principles for effective time management and independent study, (c) help-seeking and feedback use. Therein, learners will be familiarized with the contemporary conceptualization of feedback in which students play an active role. In that respect, an emphasis will be placed on digital ways of eliciting feedback and engaging with it. This will not only help them to become more comfortable with using and receiving digital feedback in their later university studies, but also to quickly establish connections with other students (peer feedback) and the instructors (teacher feedback). These procedures will be practiced in the subsequent sessions when students engage in literature searches, citation and writing activities. In previous years, students received most of their feedback in a more traditional way, i.e. from the instructor by email or face-to-face in class. Peer feedback and other forms of feedback were rare. Due to group sizes, face-to-face feedback in the classroom might not always reach every student, and shy students could be ignored because they are reluctant to openly ask their questions. Email feedback and text-editor feedback, by contrast, are limited to the written form and might not be adequate to offer emotional support and detailed explanations to the students (see the review by Schluer, 2022).

The **Literature** part starts with a library tour, where students learn how to use the library resources effectively. First, the emphasis will be placed on print resources, whereas the next session includes a workshop on using online databases and online libraries to find documents. For a selected topic, the students will retrieve resources through keywords and practice academic reading as well as the critical evaluation of literature in

sessions three and four. The fifth session covers literature management and how to use literature management tools such as Citavi and Zotero.

After these sessions, the students will upload the literature they have found into Zotero or Citavi, categorize it and export the file in bib format for easier compatibility with other reference management systems. Subsequently, they will select one journal article, read it, summarize it and evaluate it critically with the help of guiding questions on a worksheet. Students will be asked to upload the files onto the course cloud, after which they will receive a short screencast feedback file from their instructor. In the screencast, the instructor can pinpoint the strengths of the submitted assignment, demonstrate corrections and offer additional tips for a more effective use.

This links up to the **Citation** section. Different citation styles will be introduced and accompanied by practical activities. Students will practice the use of in-text citations and the formatting of reference entries for the bibliography by utilizing APA (American Psychological Association) and MLA (Modern Language Association) citation styles.

This leads smoothly to the **Writing** part of the seminar. The students are introduced to academic writing, characteristics of academic language and common paper structures. For a topic of their choice (or a given topic), they will engage in academic writing activities and learn how to formulate a research question. They will share their mini essay or proposal on the course cloud, together with appropriate citation. With the help of the text-editing and commenting features of the cloud application, the students will engage in a peer feedback activity by providing feedback to a fellow student's assignment. Afterwards, the instructor will give feedback via the cloud-editor as well as during a subsequent videoconference. The videoconference allows the direct navigation through the documents to identify common challenges and interactively discuss open questions with the students. Finally, the last class is a Q&A session in preparation for the exam, which is a take-away test that needs to be completed within a given time limit.

Overall, then, there are three types of digital feedback involved in the design of this course, namely screencast feedback from the instructor, cloud-editor feedback from peers and the instructor, and subsequent videoconference feedback.

4. Course "Introduction to English Language Teaching"

The "Introduction to English Language Teaching" is the first-semester course in the TESOL module.

4.1. Learning Objectives

In this introductory course, the first-semester MA students gain a comprehensive overview of the broad field of English language teaching. The aim is to lay important theoretical and practical foundations for the subsequent TESOL courses and for their future profession. This includes students' ability to

- describe, explain and critically discuss the leading models, methods and principles of foreign language learning and teaching,

- describe important principles for the teaching of grammar, vocabulary and culture as well as the skills of reading, writing, listening, speaking and mediation,
- suggest practical teaching activities based on theoretical knowledge and contemporary perspectives on language learning and teaching in face-to-face and digital environments.

4.2. Teaching Approach and Digital Feedback Procedures

The seminar follows an inverted classroom approach (Lage et al., 2000), i.e. knowledge acquisition is accomplished through preparatory reading of a relevant textbook chapter (taken from Meyer et al., 2022), videos or other web resources, whereas the seminar sessions are dedicated to the clarification of open questions and the application of the knowledge gained.

In previous years, the students completed a series of tasks, such as filling out a self-reflective questionnaire at the beginning of the course (EPOSTL; Newby et al., 2007), drafting student activities or engaging in group discussions. Nevertheless, compared to other courses, there was relatively little interaction among the students and with the teacher. This might have been due to the theoretical orientation of the seminar or due to the teaching methodology that was adopted. Moreover, it was observed that the number of questions about the exam contents increased towards the end of the seminar, whereas hardly any questions were posed in earlier sessions. Additional possibilities for student activation were therefore considered for the redesign of this course.

Notably, collaborative feedback on Padlet, a cloud application that resembles a digital bulletin board, was utilized. For three seminar topics, the students were asked to post their ideas and assignment solutions on a Padlet. Each student then viewed their fellow students' posts, liked them, commented on them, re-structured them, or linked them to related posts. Moreover, beyond text comments, they could also create audio or screencast feedback on Padlet (see Schluer, 2022, pp. 102–103, and chapter 8 by Gießler and Olejniczak in this volume). Digital feedback processes can thus take place in various ways. One seminar topic that was deemed particularly suitable was intercultural learning and teaching. For this topic, students linked online resources on the Padlet and commented whether and why they considered them useful or not. The digital board therefore provided a space for critical reflection and discussion.

Another significant change in the seminar was the introduction of peer quizzing (cf. Mazur, 2013) and the incorporation of continuous self-assessment of one's own level of knowledge throughout the seminar. By contrast, in previous years, only a comprehensive checklist about the course contents was disseminated in mid-term and a mock exam was conducted in the week before the final exam. As part of the DFM project, students were actively involved in the development of quiz questions. After the first theoretical units (chapters 1 to 4 of the textbook by Meyer et al., 2022), the students worked in small groups to generate two to three questions per chapter, along with the correct answer or answer options. Each small group focused on one chapter. They were free to choose the question format (open or closed question, such as single choice or multiple choice) as well as the survey mode/tool (e.g., textpad or polling feature of the video conferencing application BigBlueButton or an external tool such as Mentimeter, Particify, Pingo, Bamboo-

zle). Then they posed these questions to their peers and discussed the answers. This activity served four major purposes: They needed to ensure their own understanding of the topic by closely reading the pertinent chapter as a preparation for the session; otherwise, question creation would be difficult. Second, they did not only learn about assessment and testing through the textbook, but practically applied and refined their testing skills through this activity. Especially when the peers gave an unexpected response, a critical reflection on the formulation of their question and the choice of the response type or answer options was triggered. Third, as respondents, they were able to test their own knowledge and understanding. At the same time, the lecturer gained insights into students' progress and level of understanding. Fourth, a pool of questions was beginning to be generated that can be re-utilized by the current students for their exam preparation or by prospective course participants for self-assessment purposes.

Additional changes were as follows: In foregoing years, modified questions from the "European Portfolio for Student Teachers of Languages" (EPOSTL; Newby et al., 2007) were used at the beginning of the seminar to encourage self-reflection among the prospective teachers. When students aspire to a teaching career, continuous feedback is important so that they can tailor their teaching to the needs of their learners in specific learning situations. For this purpose, not only feedback from learners to teachers is important, but also self-feedback, e.g. based on teaching experiences. Different e-portfolio tools were therefore inspected. It became apparent that the tools were either platform-bound (e.g. learning platform OPAL), that their range of functions was limited, that a seamless integration into an existing learning platform was not possible (Portfolium), or that there were access restrictions (Moodle/Mahara), additional costs (Adobe Portfolio) or concerns about data protection (Google Sites). It was thus decided to generate a PDF form for the EPOSTL assignment, which could be uploaded to a teaching portfolio at a later stage.

Moreover, team skills are essential to facilitate professional growth as a teacher, which can occur through collegial collaboration and peer feedback. One practical task in the seminar therefore aimed to strengthen the collaborative skills of the prospective teachers and simultaneously foster their digital skills on social media. Students chose one topic from the course schedule in order to identify the key information and convey it in an attractive manner to fellow students and the broader TESOL community. More precisely, the prospective teachers were requested to design an Instagram post (as a series of images) or a reel, which would eventually be uploaded onto the TESOL.TUC Instagram channel (https://www.instagram.com/tesol.tuc/). When conducted as group work, this activity requires team-internal coordination (intra-group feedback; see Schluer, 2022, p. 111). Additionally, team-external feedback from other course members or the wider Instagram community was enabled through such a public post. However, since not all course members have an Instagram account or want to use it for university purposes, these feedback procedures could become more difficult. For further recommendations regarding the use of social media for feedback purposes, see chapter 12 by Schluer in this volume.

Finally, at the end of the course, students were asked to complete an online course evaluation questionnaire. In contrast to previous years, it contained an additional sec-

tion about digital feedback procedures. Overall, it served as a source of summative feedback from the students to the lecturer at the conclusion of the course.

4.3. Proposed Changes for Subsequent Implementations

For future implementations, it is planned to continuously expand the database of questions by involving the students actively in the development process. Afterwards, this growing pool of questions will be transformed into self-assessment quizzes that students can use as a preparation for the final exam. Especially in courses that do not comprise an exam (such as the reformed course in the new degree program), the questions could (additionally) be utilized as part of the preparatory work for the individual sessions. In other words, after students have read the relevant chapter for a session, they should take the online quiz and pass it with at least 60%, for instance (multiple tries might be allowed). Teachers could determine an overall number of quizzes that need to be passed before course closure, e.g. 8 out of 10 mini quizzes need to have a pass rate of at least 60%. If the module regulations do not require a pass for that course, some of the questions might be implemented during the course sessions via audience response systems (ARS; see literature review and suggestions by Schluer, 2022, pp. 156–163).

Zooming in on one assignment, i.e. the social media task, teachers might consider utilizing fake messengers as an alternative to real messengers to develop students' digital feedback skills on social media channels within a protected space.

Zooming out to the entire degree program, the EPOSTL assignment could be conceived of as the first component of an e-portfolio that the (prospective) teachers will continue to complete during their studies and professional career. For this, an e-learning application needs to be chosen that can also be accessed across modules and after graduation (cf. Winchell, 2018). It should be utilized for self-reflection and could also incorporate feedback from peers, lecturers, mentors and colleagues at schools etc. (cf. Schluer, 2022, pp. 222–224).

5. Course "Methodology of Adult Education: Digital Feedback Methods"

The course is conducted in the second semester of the MA program. In the old degree regulations, it was part of the TESOL module, whereas it evolved into a mandatory course for students of all specializations with the introduction of the new *English Studies* degree program (see section 2). The present section will concentrate on the "Digital Feedback" course which was part of the TESOL module element "Methodology of Adult Education", whereas section 6 will be devoted to the new "Digital Teaching" course of the "Digital Skills" module.

5.1. Learning Objectives

Until summer term 2022, the course objectives were as follows: By the end of the course, students should be able to

- describe important characteristics of feedback,
- distinguish between different digital feedback methods,
- use digital applications to test learners' knowledge,
- produce a screencast video for feedback purposes.

Due to the expanded focus in summer term 2023, a modification of some aims became necessary. Students should be enabled to

- describe important characteristics of feedback,
- distinguish between different digital feedback methods,
- produce digital feedback by applying assessment criteria and utilizing digital tools,
- critically assess the produced feedback and reflect on potential improvements,
- create and present a task description for the purposeful integration of digital feedback in teaching.

5.2. Teaching Approach and Digital Feedback Procedures

This second-semester course adopts project-oriented learning as a methodological approach, i.e. students work on a practical project throughout most seminar sessions.

According to the old study regulations, this course was called "Methodology of Adult Education", which, however, did not align with the broad fields of interest and needs of students aspiring to a teaching profession in primary and secondary education, as well as in higher education or university-external adult education contexts (due to a shortage of teachers in Saxony and throughout Germany).

Since winter term 2018/19, the focus of the course continued to evolve over the years; however, the common element of all implementations was the focus on pedagogically-driven technological competencies (see e.g. the TPACK model by Koehler et al., 2013). Until summer term 2022, the participating students created **peer screencast feedback** and thus developed feedback skills, academic skills and video production skills in an integrated manner (see Schluer, 2020, for details). Online questionnaires were used after each step of this complex process, through which students were encouraged to self-reflect while the teacher gained insights into the participants' understanding and progress.

The approach was refined over the years. First, live poll feedback (in Pingo) was added, which students created in small groups and utilized during their short presentations. Their task was to design an interactive presentation on a theoretical or empirical article on feedback by engaging their peers via Audience Response Systems (ARS). For this, they were provided with a tutorial video that demonstrated the functions of the ARS Pingo (Schluer, 2021, available at https://youtu.be/JqlmJfW4jV0; short link: https://tinyurl.com/JSchluerPingo).

Next, the practical phase started in which the participating students exchanged their own academic text drafts and provided electronic feedback in the text editor and via screencasting. The peer feedback in the text editor as well as in the screencast was implemented anonymously to produce feedback independent of interpersonal relations between the peers. Since many reviewing functions of the text editor as well as the creation of screencast feedback were novel for the participating students, the entire process was

facilitated by the teacher through demonstrations, manuals and one-on-one coaching (see Schluer, 2020). Regular mini consultations were conducted via videoconferences in which students shared their screen and addressed their progress and questions. During these one-on-one consultations, the instructor provided individualized feedback to assist the students in producing their text-editor-based screencast feedback video. After the mini consultations, the instructor summarized the most frequently recurring challenges that the students encountered and offered solutions through demonstrations via screensharing. Moreover, an online forum was set up for students' questions, and tutorial support was additionally provided.

The anonymous scenario, however, makes dialogic feedback processes difficult to accomplish. Even though the students had the chance to clarify open questions with their peers after they had received the anonymous feedback files (reviewed text document and screencast video), only a limited number of students engaged in follow-up dialogues with their peers. This could have had several reasons: either the feedback was entirely clear for them, or they did not see any urgency to continue their work on the reviewed draft, or they did not want to reveal their identity to their peers.

To encourage interactions – even in anonymous settings – two further novelties were introduced in summer term 2022, namely a "Feedback Request" and a "Feedback Response" sheet (cf. Winstone & Carless, 2020, pp. 108, 110; see also Schluer, 2022, pp. 37, 42–43). In the feedback request, the students were encouraged to reflect on the strengths and weaknesses of their own draft text and to identify up to three areas on which they would like to obtain feedback (assessment criteria). The questions were as follows:

(1) What do you think are the **strongest aspects** of your assignment? OR: What are the areas you feel confident about in your assignment?
(2) What areas of your assignment do you think **need to be improved**? OR: What are the areas you are unsure of in your assignment?
(3) I would particularly like to **get feedback on** (list up to three specific areas): …

This self-reflection can prompt students to self-correct even before submitting their assignment. However, since prospective teachers are expected to develop diagnostic skills for assessing the quality of their peers' submitted drafts, the self-assessment (the feedback request) was not shared with the peers, but only the draft. In a real class context, however, this feedback request would be submitted along with the draft text, e.g. as a cover sheet (Winstone & Carless, 2020, pp. 108, 110).

After the peer feedback was produced, the prospective teachers were encouraged to self-reflect on it. Likewise, after they had obtained feedback, they assessed the peer feedback by completing an online questionnaire. Additionally, they were asked to revisit their initial feedback request and compare it to the feedback they had received. In this feedback response sheet, they were also encouraged to set up an action plan. More precisely, the instructions were as follows:

(1) These are the **key points** that I remember from the feedback that I received: …
(2) In how far does peer's feedback **match** your own evaluation and feedback request?
(3) Are there any **additional points** you were not aware of beforehand?

(4) Was there something in the feedback that you found **unnecessary**? Why?
(5) In how far does the feedback **help you to improve** your further learning? What **steps** do you want to take now? Set up an **action plan** for your further learning based on the feedback you have received and your own reflections.

The different data sources (teacher and peer assessment of the feedback generated) formed the basis for the final feedback discussion with each student. This feedback on the feedback dialogue was done in a videoconference due to the pandemic restrictions, but could alternatively be held in the classroom. In addition, the students provided feedback to the instructor via a digital course evaluation survey. After five courses on peer screencast feedback that were continuously refined, the results show that the course design has reached a level of maturity which does not require any serious restructuring. Optional modifications only refer to the use of alternative programs for screencast creation. Up to now, the very comprehensive and yet easy-to-use video editor Camtasia had been used. However, since 2023 the free version was only available for a three-day use instead of a 30-day trial. Alternative freeware programs could therefore be tested.

Indeed, since the Covid-19 pandemic, additional functions for existing digital apps as well as several new digital tools were developed. At the same time, also other digital feedback methods gained in popularity. In summer 2023, the thematic spectrum of the course was therefore broadened, i.e. students were able to define their own focus for their project in the area of digital feedback. Moreover, it was possible to draw on the newly published textbook *Digital Feedback Methods* (Schluer, 2022) to help students gain an overview of feedback methods beyond screencasts, text editors, live polls, video conferences, and surveys. At the same time, this textbook revealed underexplored areas, which were tackled in the DFM project. Furthermore, advances in AI led to a boost in new tools and functions that still need to be tested in terms of their usefulness for feedback purposes (see closing chapters 16 and 17 by Schluer in this volume). The scope of the textbook (Schluer, 2022) was therefore expanded, with the seminar being conducted as part of the DFM project (see introductory chapter 1 by Schluer in this volume).

The general course structure, however, was similar to the previous screencast feedback project. The seminar started with theoretical foundations in which the students teamed up to prepare a short presentation with interactive elements (poll feedback). They mainly dealt with recent literature, studies and models about feedback literacy, which pertained to the following topics:

(1) The importance of feedback for learning success (Hattie & Timperley, 2007; Wisniewski et al., 2020),
(2) Feedback ecology and feedback as sociomaterial practice (Chong, 2022; Gravett, 2022),
(3) Student feedback literacy (Carless & Boud, 2018; Zhan, 2022),
(4) Peer feedback training and practice (Sun & Doman, 2018; Wood, 2022),
(5) Teacher feedback literacy and feedback opportunities in course design (Esterhazy, 2019; Boud & Dawson, 2023).

Afterwards, the main project phase started. Each student was asked to think of a specific learning context and task as well as to select a suitable digital feedback method and tool. In the end, the students chose one of the following methods: blog feedback, chat feedback, digital board feedback, e-mail feedback, e-portfolio feedback, robot-assisted feedback, survey feedback, wiki feedback.

For their chosen feedback method and tool, they created a written task description as well as a video tutorial. Similar to the screencast feedback course, regular feedback consultations were incorporated into the seminar sessions, either in videoconferences or in the physical classroom. Moreover, tutorial support was provided. Overall, the students completed the following steps:

- designing a task for a specific learning environment,
- presenting and discussing the ideas,
- piloting the task,
- creating a written manual (by completing a task template),
- producing a video tutorial,
- reflecting on the process and learning gain.

Finally, the eight task manuals and video tutorials were incorporated into the "Digital Feedback Map" (Schluer, 2023a; available at https://tinyurl.com/DigitalFeedbackOverview). This new course closed with an evaluation survey to elicit student opinions about potential improvements.

5.3. Proposed Changes for Subsequent Implementations

The contents of the course and its procedures underwent continuous modification by responding to students' needs (e.g. from previous course evaluations) and new developments in the field. With the heightened relevance of digital teaching, the degree programs were reformed so that the methodology seminar turned into an obligatory course for all students of English Studies at TU Chemnitz. Its design will be described in the next section.

6. Course "Digital Teaching"

The seminars "Digital Learning" and "Digital Teaching" are part of the newly introduced module "Digital Skills", which was implemented in the academic year 2023/24 for the first time. Thus, at the time of writing, these courses are still at a conceptual stage. However, in terms of the teaching approach, the "Digital Teaching" course will thrive on the experiences gained from the former TESOL "Methodology" seminar. Moreover, in terms of contents, it builds on the "Digital Learning" course that is currently being conducted. Therein, students learn about current reference frameworks and instruments that help them assess and develop their digital skills. They deal with relevant theories in the field of e-learning as well as media literacy and apply them in the criteria-based manner through SWOT analyses of digital applications and resources (see e.g. Farrokhnia et al., 2023, with

regard to ChatGPT). In this way, they gain a deeper understanding of digital learning media and methods, which they apply in the follow-up seminar from a teacher's perspective.

Overall, the contents of the module aim to support students (and prospective teachers) in adopting and enacting a reflective and critical approach to digital media. The precise learning objectives of the "Digital Teaching" course will be outlined next.

6.1. Learning Objectives

In the course, students develop strategies for selecting, designing and using digital resources in a pedagogically appropriate way, i.e. based on the intended learning objectives and learner needs. In particular, the seminar seeks to foster students' digital communication and collaboration skills as well as their ability to create digital teaching materials. In that regard, they carry out a practical multimedia project in which they design digital materials collaboratively and independently. The concrete content of the seminar and of the multimedia project will vary with recent developments in the field of digital teaching, while taking into account relevant findings and theories on multimedia learning. By the end of the course, the students should thus be able to

- describe and critically assess existing models of digital pedagogy by focussing on a meaningful integration of digital tools in teaching,
- produce an educational video and design engaging learning activities collaboratively and independently by applying principles of socio-constructivism and multimedia learning,
- make constructive use of AI tools for (self-)feedback,
- exchange digital peer feedback on the drafts of their video as well as learning activities and test the materials with a peer group,
- present their final multimedia project and critically reflect on it in the module paper by drawing on the contents from both courses (Digital Learning & Digital Teaching), the feedback they have received as well as relevant theoretical and methodological literature.

6.2. Teaching Approach and Digital Feedback Procedures

In the first sessions of the seminar, the students will explore relevant frameworks and approaches of digital teaching. Together with 2 to 3 peers, they will critically engage with relevant literature (1 or 2 articles), prepare a **short interactive presentation** (including live polls) and discuss the contents interactively with their fellow students. Based on that, they will gain a comparative understanding of different frameworks and models and identify key principles for digital pedagogical design. In this phase, they will also negotiate principles for effective team work to optimize their collaboration. Moreover, they will agree on relevant criteria for peer feedback and apply them to their peers' presentations. This way, important foundations will be laid for digital peer feedback processes during the creation of their multimedia projects.

Students will be offered a list of possible topics from the field of digital pedagogy, but will also be allowed to add their own topic suggestions and work on them. As a first step,

they will be asked to create a short **instructional video** about their chosen topic within their team. This includes the phases of pre-production (planning), production (video creation), and post-production (editing). Drawing on relevant literature and sample videos, the students will learn about design principles of instructional videos and set up criteria for their evaluation. The groups will share their video drafts on a video platform, which will be commented on constructively by another team. Based on the feedback, they will write action plans for revising their instructional video.

Afterwards, the second phase of the multimedia project will begin. As instructional videos often suffer from a lack of interactivity, their task will be to design **engaging learning activities** that accompany their video. To build a relevant theoretical understanding, the students will consider behavioral, cognitive, and affective dimensions of learner engagement and apply them to their project. They will determine specific learning goals, incorporate digital formative (ongoing feedback) and summative assessment (testing on the educational content that has been presented), and select suitable digital tools for their tasks. Moreover, they will conduct a mini digital teaching session (micro-teaching) and critically reflect on the effectiveness of their teaching project. Additionally, the usefulness of AI tools for feedback on their materials design will be tested and evaluated by the students.

Thus, overall, the students will provide and receive feedback at several stages of project development (formative assessment). For this, specific sessions and activities have been scheduled in which the students are trained in feedback provision and equipped with guidelines for self- and peer assessment, together with ongoing coaching and feedback by the teacher. Finally, an end-of-course survey will be implemented to improve the planning of the course contents for the future. Furthermore, a general wrap-up and reflection will be conducted in the final session.

While the overall project and the video are collaborative work, the students coordinate the creation of the learning activities and extra materials (e.g. handouts, tasks, podcasts, social media posts) among the individual team members. Each group member should produce at least one of these extra materials on their own. The reflection on this independently produced material will be one important part of the final paper. This overall procedure of collaborative and independent materials development evolved from the TESOL course "Curriculum Planning & Materials Development", which will be described next.

7. Course "Curriculum Planning & Materials Development"

Until 2023, this seminar was held in parallel to the course "Classroom Observation & Practical Language Teaching" in the third Master semester. However, with the new degree program, it was shifted to the second semester, i.e. finalized before the students conduct their internship and attend the "Classroom Observation & Practical Language Teaching" course in their third semester (see section 8 below). While the author of this chapter has designed all TESOL courses, the "Curriculum Planning & Materials Development" course was held and refined by Yarong Liu during the project period (i.e. in winter term 2022/23 and 2023/24). The present section will outline the essential course proce-

dures, whereas details about the implementation can be gained from the chapter by Liu in this volume (chapter 3).

7.1. Learning Objectives

By the end of the course, students should be able to

- describe relevant principles and criteria of curriculum planning and materials development,
- develop learning and teaching materials as well as lesson plans for different purposes, learner groups and settings (face-to-face, blended learning, hybrid and online teaching),
- critically reflect on the plans and materials they have created,
- suggest adaptations of their learning and teaching materials for differentiated instruction (proficiency levels, linguistic and cultural heterogeneity etc.).

7.2. Teaching Approach and Digital Feedback Procedures

This course follows a problem-based or problem-oriented learning approach to practice and promote problem-solving skills for basic challenges in everyday teaching (cf. Sontag et al., 2017, p. 46). Accordingly, several real-world (and annually changing) case scenarios were developed for which TESOL students create customized teaching and learning materials that they could implement, evaluate, and modify either during their internship or in their future careers. Within a small group of 3 to 4 persons, the students select a scenario and develop an overall course plan as well as an exemplary lesson plan in a collaborative, problem- and practice-oriented manner. In addition, each group member individually develops a concrete task and suitable materials for another session from the overall course plan. The students give a regular report on their progress and receive feedback from their peers and the instructor. Each student finally assembles relevant materials in an e-portfolio and reflects on them by resorting to theoretical and methodological literature. This seminar also functions as a bridge between the theoretical and methodological knowledge acquired in the introductory seminar (section 4) and the practical experience to be gained during the internship (see section 8).

In earlier implementations, it was mainly the instructor who provided feedback to the groups and individual students. Regular meetings in break-out rooms were scheduled for this. In the redesigned course, a greater variety of feedback activities was incorporated. The activities considered several feedback methods, tools, directions, and timing options and were aligned with specific learning contents. The feedback methods included feedback in cloud editors, forum feedback, and poll feedback by using a variety of digital tools, such as Google Docs, Google Forms, Mentimeter, Padlet, and Wakelet. They were aligned with specific learning objectives, as explained by Liu (chapter 3 in this volume). Importantly, the course not only utilized digital feedback methods, but its main aim was to empower students to incorporate digital feedback into the courses and the lesson materials they designed, i.e. to foster prospective teachers' feedback literacy (cf. Boud & Dawson, 2023; Carless & Winstone, 2023).

Based on the findings from the initial test run in winter term 2022/23 (see chapter 3 by Liu), the course has been modified further for its second implementation in winter term 2023/24. Moreover, keeping pace with theoretical advancements in teacher feedback literacy (Schluer et al., 2023; Tai et al., 2023), the modified course thrives from a joint design in which the feedback activities are co-designed with the participating students (see Liu in chapter 3). Accordingly, the course schedule only contains preliminary plans that can be modified according to students' needs. Thus, starting from session 3, the instructor encourages discussions among the students to make decisions on suitable methods and tools for the next feedback activity. This procedure is meant to heighten the participants' active engagement in the feedback process as well as to model the kinds of negotiations that they could conduct with learners in their own classrooms (cf. Liu in chapter 3). Likewise, there will be moderated discussions after the students engaged in peer feedback activities. This is meant to increase students' reflective thinking, enhance their critical judgment about the clarity of the feedback contents as well as the suitability of the chosen digital tools. In that respect, the topic of critical digital literacy (Dooly & Darvin, 2022) has been added to the course plan and students will be asked to connect their practical experiences gained in a social media feedback activity to relevant theories. These regular reflections should assist the prospective teachers in developing their feedback literacy as well as those of their future students. They resonate with the concept of teachers as reflective practitioners (Dewey, 1910; Schön, 1983), which will be fostered further in the subsequent course, i.e. "Classroom Observation and Practical Language Teaching" (see below).

7.3. Proposed Changes for Subsequent Implementations

As the revised implementation is still ongoing at the time of writing this chapter, no specific suggestions for further modifications can currently be made. The important point, however, is that teachers should reflect on their teaching regularly, do research on novel implementations, and be open-minded as well as critical towards new developments. Some innovations can indeed boost students' learning, others need to be discarded when they turn out to be ineffective or unsuitable. Flexibility on the part of the teachers and openness towards students' voices appears to be crucial to design courses that meet the needs of specific learner groups. The co-design approach that has been suggested here seems to be promising to advance learning.

8. Course "Classroom Observation & Practical Language Teaching"

Prior to the Covid-19 pandemic, small groups of students observed lessons in different educational institutions. Due to the pandemic lockdown, such a procedure was no longer possible. Moreover, more extensive practical experience and methodological reflections were considered important to help students grow into their prospective role as teachers. The course had therefore been entirely redesigned and structured around three themes:

(1) Classroom Observation,
(2) (Micro-) Teaching,
(3) Reflective Practice.

In line with that, three pillars of the internships were defined:

(1) Classroom observation,
(2) Own teaching or support of other teachers,
(3) Further job-related tasks (e.g. creating educational videos about foreign language learning, advertising courses via social media, creating extra materials for the learners, evaluating existing courses).

8.1. Learning Objectives

The above-mentioned structure aimed to foster students' abilities to

- write a classroom observation protocol and critically discuss their observations,
- analyze teaching practices and reflect on their own teaching experiences,
- suggest potential modifications for their future teaching based on contemporary teaching methods, models, and principles.

8.2. Teaching Approach and Digital Feedback Procedures

Overall, the concept of reflective practice is fundamental to this course, as it is essential for the continuous professional development of teachers (Dewey, 1910; Farrell, 2022; Schön, 1983). Students' classroom observations and teaching practices during their internships are therefore accompanied by this seminar that helps them to prepare, analyze and evaluate the internship sessions that they have observed and taught. This includes the use of observation instruments as well as of analytical tools and approaches that encourage reflection and continuous improvement of their own teaching practices.

In part 1 of the seminar, students compare different classroom observation protocols and discuss suitable techniques for distinct observation purposes. Since the observation contexts will vary from internship to internship, a first draft of a comprehensive classroom observation form was created by the instructor (revised version available at https ://tinyurl.com/ObservationFormJSchluer). This classroom observation form is not only digital in nature (a cloud-based online survey), but also considers numerous aspects of digital and hybrid teaching which had hardly been considered in previously published lesson observation protocols. Due to its novelty, the observation sheet was designed as open-ended, i.e. the students were asked to critically review it, add additional aspects, or modify existing ones. In this way, the lecturer received feedback on the draft she had designed. Special attention was paid to the use of digital feedback by the observed teachers and learners, as this had not been captured by existing classroom observation forms. For this purpose, the students were provided with a first draft of the "Digital Feedback Map", which contained a rough overview of different digital feedback methods at that

stage (now finalized as Schluer, 2023a, and available at https://tinyurl.com/DigitalFeedbackOverview). After each student had given feedback on the draft of the digital observation form, they were asked to provide feedback on their peers' comments. Based on that, the lecturer revised the classroom observation form so that students were able to use it in the subsequent sessions and during their internship or even during their later teaching profession.

The two sessions which were needed to develop the digital classroom observation form in 2022 were replaced by practical observation activities in 2023. In the first observation practice, the students watched a video-taped EFL session (Roberts, 2016) and paid close attention to one particular aspect, in this case instruction-giving. In contrast to this on-site course, the next observation practice was about an online session conducted via Zoom (Bollas, 2020). Here, the focus was set on interaction patterns in the online classroom. For each observation practice, students obtained guiding questions and were able to consult relevant sections of the comprehensive classroom observation form (https://tinyurl.com/ObservationFormJSchluer).

These analyses of video-taped lessons constituted a first important step to deepen their understanding about "reflective practice" (Farrell, 2022; Schön, 1983). Students were familiarized with the concept of a reflective practitioner and enacted this after their own micro-teaching. In the old degree program, the micro-teaching was an optional assignment due to the limited number of credit points that can be obtained for that seminar. From winter term 2024/25 onwards, however, it will turn into an obligatory element. Nevertheless, several students already seized the micro-teaching opportunity in earlier years to obtain feedback on their teaching and task ideas. So far, the micro-teaching was either done in a videoconference or in a hybrid manner. Subsequently, the students were guided to self-reflect on their performance. Moreover, they obtained feedback from their peers and the instructor.

Finally, in the internship report, the students were required to closely analyze a taught or observed session and reflect on it by drawing on relevant literature and their own experience.

8.3. Proposed Changes for Subsequent Implementations

Ideally, the completed lesson observation forms will be integrated into the students' personal e-portfolios so that they can also observe and reflect on their own development in the long term. A first foundation for this has been laid through the EPOSTL assignment in the introductory course (see section 4). In addition to self-feedback, e-portfolios enable various forms of feedback from teachers, mentors, employers, colleagues and student peers. Such an approach could be facilitated through multidirectional mentoring between teacher candidates and experienced teachers at schools, universities and further educational institutions.

Another option is to have students keep a "Digital Internship Diary" (cf. Chong, 2022, p. 8: "asking teachers and learners to complete reflective diaries, feedback logs, or record reflective videos"). A blog application would be suitable for this purpose, but for privacy reasons, it should preferably be accessible by course members only or privately. Selected contents from this blog could then be shared with fellow students (peers) to give and

receive blog feedback (Schluer, 2022, pp. 116–123). The "Digital Internship Diary" might serve as a supplement to the digital classroom observation sheet.

9. Course "TESOL Research Colloquium"

The TESOL Research Colloquium (TRC) is the course that has undergone most change during the digital feedback project and has also been researched most extensively (see Schluer, in prep.; Schluer, submitted). The present section describes the changes in the teaching approach and further modifications that are planned for future implementations.

9.1. Learning Objectives

By the end of the course, students should be able to

- delimit a research topic and specify the research question(s) for their thesis,
- describe different research methods and select those that fit the research goals,
- sketch a research design and timeline for their research project,
- analyze empirical data, also by using specialized software for quantitative and qualitative analysis,
- present their research project ideas and/ or thesis in written, oral and multimodal ways,
- provide feedback to their fellow students by using various (digital) feedback methods and engage in critical discussions.

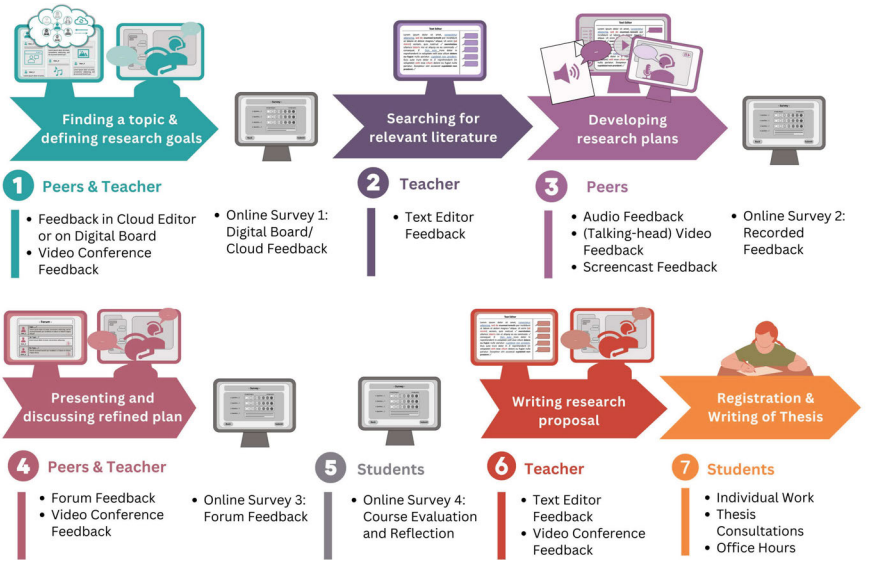
9.2. Teaching Approach and Digital Feedback Procedures

Previously, there was only one opportunity for each student to obtain feedback on their research plans. In line with the requirements of the old degree programs, students reported about their research process in one of the course sessions, which was followed by peer and instructor feedback. As the first research colloquium took place in the first semester of the Covid-19 restrictions, students did not give a live presentation, but screenrecorded it before a designated date. Following the inverted classroom model (Lage et al., 2000), the peers and the instructor watched the presentation and took notes before the live session. At the beginning of the webmeeting, the fellow students were requested to copy their notes into the shared notes tool of the videoconference application and discussed them orally. The presenters had the chance to clarify follow-up questions immediately, engage in further interaction with the peers, and obtain additional feedback from the instructor.

In the reformed TRC, multiple feedback opportunities are granted as the students move through different phases of the research process (see Schluer, 2023b, pp. 9–10). In line with the concept of "inquiry-based learning" (see the review by Pedaste et al., 2015; cf. Duran & Dökme, 2016; Sonntag et al., 2017), students both "learn to research" and "research to learn" by going through as many stages of the research cycle as possible. This

includes an introduction to the topic; the development of a research question; the collection of information about the topic, relevant theories, previous research findings, and possible methods; the subsequent selection and acquisition of methods; the development of a research design; and the implementation of the research, including the analysis and presentation of the results as well as a reflection on the entire process (Sonntag et al., 2017, p. 14). For each phase, digital feedback possibilities are incorporated, as shown in Figure 3 (expanded version from Schluer, 2023b, p. 9).

Figure 3: Feedback Procedures in the Revised TESOL Research Colloquium



All this takes place within an open learning and feedback environment (cf. Sonntag et al., 2017, p. 39; Wood, 2019). Thus, to enable sustained support and learning from and with one another in this complex process, the participants continuously share their progress on the course cloud (or learning platform). This is followed by feedback exchanges that make use of different digital feedback methods (see Schluer, 2022). Thereby, peer feedback is typically provided before teacher feedback is given (Schluer, 2022, p. 42). Moreover, feedback is commonly exchanged asynchronously prior to a live meeting. This frees off classroom time for the clarification of recurring challenges as well as individual questions (cf. Lage et al., 2000).

Throughout this cyclical process, the teacher serves as a learning guide (cf. Vygotsky, 1978; see e.g. Duran & Dökme, 2016, p. 2891), who trains the students, monitors the peer process and provides regular feedback about the proposed contents and methods as well as about the quality of the peer comments (Schluer, 2022, pp. 40–42). Additionally, the teacher typically offers handouts with important advice, guiding questions as well as further resources and templates, depending on the students' needs (cf. Sonntag et al., 2017, p. 27).

Regular reflection and feedback loops are important elements of the inquiry cycle to enhance meta-cognition and self-regulation (see the review by Pedaste et al., 2015, pp. 55–57; cf. Marshall, 2013, cited by Gholam, 2019, p. 116). Specifically, the four online surveys depicted in Figure 3 are meant to encourage students' reflection about the affordances and limitations of the digital tools that were used for the peer feedback exchange. Such a reflection is essential to foster students' (especially prospective teachers') critical thinking as an important facet of digital competence. Upon completion of each online questionnaire, the respondents therefore received a copy of their answers, which they could collect in a kind of feedback diary or e-portfolio.

Furthermore, the surveys served as data collection instruments for evaluating the usefulness of the reformed course. However, if the participating students are already familiar with different digital feedback methods and tools, the inclusion of these surveys might be perceived as unnecessary. Thus, as soon as a degree program has been systematically redesigned with digital feedback, as suggested here, the surveys can be skipped. They should, however, be reintroduced as soon as further major modifications are made, e.g. due to technological innovations. One likely area is the incorporation of AI tools in the research and writing process, which appears to be promising, but still bears several limitations at the present stage (see chapters 16 and 17 by Schluer in this volume). To avoid misuse and erroneous output, the use of AI technologies should be critically evaluated together with the students in the classroom. This also leads us to consider some further ideas for subsequent implementations in the next section.

9.3. Proposed Changes for Subsequent Implementations

Based on the TRC research that was conducted in winter term 2022/23, i.e. the feedback analyses and the survey analyses (Schluer, in prep.; Schluer, submitted), suggestions for improvement were derived that will be incorporated in the next implementations.

Notably, it appeared that some students could have profited from further feedback training and time for practice. First of all, a systematic integration of digital feedback into the degree programs (cf. macro-level considerations by Boud & Dawson, 2023, in chapter 4 by Schluer in this volume) could help to make it a natural part of the learning process for the students, as proposed in this chapter. Since the TRC is the final course that the students attend, it will take a few years until possible effects of this ongoing training will be discerned in the TRC. However, there is a direct way in which the next group of TRC participants can already benefit from the output of the DFM project. In contrast to the TRC members from winter term 2022/23, the new participants can access detailed written manuals and video tutorials about each digital feedback method by visiting the "Digital Feedback Map" (https://tinyurl.com/DigitalFeedbackOverview; Schluer, 2023a).

Moreover, another change is currently being implemented: The course schedule contains a detailed reminder of feedback as a dialogic process, which is ideally initiated by the student. Thus, when submitting an assignment (e.g. on the digital board or in a text editor), the students are asked to formulate a specific feedback request (Winstone & Carless, 2020, p. 110). The aim is to support students' critical self-reflection and to reduce the amount of superficial feedback that peers might otherwise provide. The detailed instructions are reproduced below:

(1) Initiating a feedback dialogue

When submitting an assignment, please always try to formulate a **specific feedback request**.

The purpose of a feedback request is to elicit specific feedback from your peers and the supervisor. Thus, you need to think about the concrete parts of your research project you are not sure about and want to discuss. Formulate **1 or 2 specific questions**, such as:

- "I am interested in two different topics and don't know which one to choose. I have listed several pros and cons on the digital board and would be grateful for your suggestions. Which one do you think is most feasible and relevant and why?"
- "In my research, I focus on XY and have already started to write the literature part. However, I am not sure about the most fitting structure or whether I forgot an important term in my table of contents. Could you please look at sections 2.1 to 2.4 of my table of contents (see upload)? What do you think?"
- "I have piloted my survey already and noticed that the responses for the open questions went into a totally different direction than the one that I had intended. So, I assume that maybe the formulation of my questions was not clear enough, or that a different data collection format would have been more suitable (e.g. closed questions or interview)? Can you please look at questions 4 + 5 of my uploaded draft and the three sample responses that I have received? Thank you!"

(2) Exchanging feedback (giving and taking)

In response to your peer's feedback request, try to give concrete suggestions and explanations.

Identify the **strengths** of your peer's work as well as the **areas for improvement**. Formulate your feedback in an appreciative, specific and constructive manner while nevertheless drawing your peer's attention to the aspects that are hard to understand, contradictory or need improvement for other reasons. **Explain** why you consider something as well done or as in need of revision or clarification. Give specific **suggestions** how the improvement could be reached, e.g. by providing concrete examples, by mentioning useful websites or by incorporating other helpful resources.

Bear in mind that you will obtain feedback from your peer as well; so, **imagine yourself being the feedback recipient** when giving feedback to your peer: What kind of feedback would you expect? In what way should it be formulated? Would you need some encouragement and motivation as well as constructive criticism that will help you improve?

Certainly, you will not be able to comment on all aspects that your peer might desire; you cannot give an expert opinion on everything because everybody has different backgrounds, interests, and resources available. In sum, however, peers find it usually very helpful to receive supportive comments as well as critical questions from a person who is in a similar situation or has gone through it recently (such as the different stages of the research process).

Remember that feedback is an **ongoing dialogue**. Not all feedback is perfect or easy to understand. Therefore, don't hesitate to ask questions for clarification in response to the

feedback that you have received. A **thanks** for the feedback and a **description of how you are going to use it** would be much appreciated as well.

10. Discussion and Conclusion

This chapter has provided detailed insights into the process of redesigning TESOL courses by means of digital feedback procedures. This process gained momentum in 2021 when external funding was granted and the university-internal process of the degree reform was started.

Overall, we have seen that digital feedback methods should be carefully aligned with the specific learning objectives. However, research has hardly ever been conducted on the suitability of digital feedback procedures for concrete tasks. The DFM project contributed to filling this substantial gap. At the same time, the redesign process cannot be considered as a closed one, as it needs to be reassessed continuously while responding to changed demands. One noticeable development has occurred in the field of AI since late 2022. With the release of ChatGPT (see chapter 16 by Schluer in this volume), many academics felt threatened but also recognized its affordances. Students seem to be curious in exploring it while also observing certain limitations.

There are also other digital feedback methods that are still underexplored, and one of them are digital feedback portfolios. In the current redesign of the TESOL curriculum that was presented in this chapter, e-portfolios were regarded as potentially beneficial for the students to encourage critical reflection. However, practical challenges were encountered, such as the accessibility of the digital portfolio across different courses and after graduation. While the use of Google Sites could help to overcome this challenge, it does not conform to the data protection policies of many educational institutions. Likewise, Google Forms was found to be advantageous for the reflective online surveys, as respondents were able to reconsult their responses on a later occasion. Ideally, then, an e-portfolio application should be chosen that is approved by the educational institution but at the same time accessible throughout the prospective teachers' professional life.

A commonality of all courses was that they combined self-directed with collaborative learning and were accompanied by regular feedback from the peers and teachers. The research gaps delineated above pinpoint further possible directions, notably AI-powered self-feedback and feedback from externals, such as in-service teachers or mentors. These additional directions could therefore be included in future pedagogical practice. The constant engagement in reflective practice (Dewey, 1910; Farrell, 2022; Schön, 1983) accompanied by research on the course designs (cf. e.g. Armstrong et al., 2020; Collins, 1990, on design-based research) may ultimately motivate the student teachers to enact such practices themselves. Likewise, by providing insights into the challenges that were encountered and the solutions that were explored, this chapter hopes to inspire other educators and encourage change processes in higher education through concerted efforts across modules.

Especially in an era that is characterized by ongoing technological advancements and pedagogical innovations, higher education should be a vanguard of continuous redesign in response to the evolving pedagogical demands. As prospective teachers are immersed

in pedagogical approaches that align with the latest advancements in research and technology, they are better equipped to navigate the dynamic landscape of teaching and cultivate the required competencies among their students. In that respect, digital feedback can help empower students to take on an active role in knowledge-seeking and critical reflection, which may ultimately lead to pedagogical innovation and ongoing improvements.

References

Armstrong, M., Dopp, C., & Welsh, J. (2020). Design-based research: What is DBR, why might one do it, and how does one do it well? In R. Kimmons & S. Caskurlu (Eds.), *The students' guide to learning design and research*. EdTech Books. https://edtechbooks.org/studentguide/designbased_

Bollas, A. (2020). *DEMO lesson: Teaching English online using Zoom*. https://youtu.be/b9rY7eyAJtk

Boud, D., & Dawson, P. (2023). What feedback literate teachers do: An empirically-derived competency framework. *Assessment & Evaluation in Higher Education*, *48*(2), 158–171. https://doi.org/10.1080/02602938.2021.1910928

Brandenburg, R., Glasswell, K., Jones, M., & Ryan, J. (Eds.). (2017). R*eflective theory and practice in teacher education*. *Self-Study of Teaching and Teacher Education Practices (STEP): Vol. 17*. Springer.

Carless, D., & Boud, D. (2018). The development of student feedback literacy: Enabling uptake of feedback. *Assessment & Evaluation in Higher Education*, *43*(8), 1315–1325. https://doi.org/10.1080/02602938.2018.1463354

Carless, D., & Winstone, N. (2023). Teacher feedback literacy and its interplay with student feedback literacy. *Teaching in Higher Education*, *28*(1), 150–163. https://doi.org/10.1080/13562517.2020.1782372

Chong, S. W. (2022). The role of feedback literacy in written corrective feedback research: From feedback information to feedback ecology. *Cogent Education*, *9*(1), 1–13. https://doi.org/10.1080/2331186X.2022.2082120

Collins, A. (1990). *Toward a design science of education. Technical report No. 1.* Center for Technology in Education, New York, NY.

Dewey, J. (1910). *How we think*. D. C. Heath & Co. Publishers.

Dooly, M., & Darvin, R. (2022). Intercultural communicative competence in the digital age: Critical digital literacy and inquiry-based pedagogy. *Language and Intercultural Communication*, *22*(3), 354–366. https://doi.org/10.1080/14708477.2022.2063304

Duran, M., & Dökme, İ. (2016). The effect of the inquiry-based learning approach on student's critical thinking skills. *EURASIA Journal of Mathematics, Science and Technology Education*, *12*(12), 2887–2908. https://doi.org/10.12973/eurasia.2016.02311a

Esterhazy, R. (2019). Re-conceptualizing feedback through a sociocultural lens. In M. Henderson, R. Ajjawi, D. Boud, & E. Molloy (Eds.), *The impact of feedback in higher education: Improving assessment outcomes for learners* (pp. 67–82). Springer International Publishing.

Farrell, T. S. C. (2021). Tesol teacher education: A reflective approach. Edinburgh Textbooks in TESOL : TESOL. Edinburgh University Press.

Farrell, T. S. C. (2022). *Reflective practice in language teaching*. *Elements in Language Teaching*. Cambridge University Press. https://www.cambridge.org/core/elements/reflective-practice-in-language-teaching/DFC2E45025AE1A9520A4A1A5B832B872 https://doi.org/10.1017/9781009028783

Farrokhnia, M., Banihashem, S. K., Noroozi, O., & Wals, A. (2023). A SWOT analysis of ChatGPT: Implications for educational practice and research. *Innovations in Education and Teaching International*, 1–15. https://doi.org/10.1080/14703297.2023.2195846

Gholam, A. (2019). Inquiry-based learning: Student teachers' challenges and perceptions. *Journal of Inquiry & Action in Education*, *10*(2), 112–133.

Gravett, K. (2022). Feedback literacies as sociomaterial practice. *Critical Studies in Education*, *63*(2), 261–274. https://doi.org/10.1080/17508487.2020.1747099

Hattie, J., & Timperley, H. (2007). The power of feedback. *Review of Educational Research*, *77*(1), 81–112. https://doi.org/10.3102/003465430298487

Koehler, M. J., Mishra, P., & Cain, W. (2013). What is Technological Pedagogical Content Knowledge (TPACK)? *Journal of Education*, *193*(3), 13–19.

Lage, M. J., Platt, G. J., & Treglia, M. (2000). Inverting the Classroom: A Gateway to Creating an Inclusive Learning Environment. *The Journal of Economic Education*, *31*(1), 30–43. https://doi.org/10.2307/1183338

Mazur, E. (2013). *Peer instruction: A user's manual* (1st ed.). Pearson New International Edition. Pearson.

Meyer, M., Volkmann, L., & Grimm, N. (2022). *Teaching English* (Second, updated and completely revised edition). *bachelor-wissen*. Narr Francke Attempto.

Newby, D., Allan, R., Fenner, A.-B., Jones, B., Komorowska, H., & Soghikyan, K. (2007). *European portfolio for student teachers of languages (EPOSTL): A reflection tool for language teacher education. Languages for social cohesion: Language education in a multilingual and multicultural Europe*. Council of Europe Publ. http://archive.ecml.at/mtp2/publications/C3_Epostl_E_internet.pdf

Pedaste, M., Mäeots, M., Siiman, L. A., Jong, T. de, van Riesen, S. A., Kamp, E. T., Manoli, C. C., Zacharia, Z. C., & Tsourlidaki, E. (2015). Inquiry-based learning: Definitions and the inquiry cycle. *Educational Research Review*, *14*, 47–61. https://doi.org/10.1016/j.edurev.2015.02.003

Roberts, R. (2016). *Navigate in the classroom – full lesson*. Teaching English with Oxford. https://youtu.be/Joti4cziL-M

Schluer, J. (in prep.). *Digital feedback in the research planning process*.

Schluer, J. (submitted). Synchronous and asynchronous online feedback in remote research colloquia: Development over two years of Covid-19 ELT. In N. Radić, A. Atabekova, M. Freddi, & J. Schmied (Eds.), *World universities' response to COVID-19: Developments and innovation in language teaching and learning*. Research-publishing.net.

Schluer, J. (2020). Individual learner support in digital ELT courses: Insights from teacher education. *International Journal of TESOL Studies*, *2*(3), 41–63. https://doi.org/10.46451/ijts.2020.09.17 (Special Issue: ELT in the Time of the Coronavirus 2020 (Part 2)).

Schluer, J. (2021). *Introduction to Pingo*. https://www.youtube.com/watch?v=JqlmJfW4jV0

Schluer, J. (2022). *Digital feedback methods*. Narr Francke Attempto.

Schluer, J. (2023a). *Digital feedback map: Overview of digital feedback methods*. https://tinyurl.com/DigitalFeedbackOverview/

Schluer, J. (2023b). Digitales Feedback didaktisch gedacht: Überblick und Anwendungsbeispiel. *Perspektiven Auf Lehre. Journal for Higher Education and Academic Development*, *3*(2), 1–14. https://doi.org/10.55310/jfhead.42

Schluer, J., Rütti-Joy, O., & Unger, V. (2023). Feedback literacy. In T. Philipp & T. Schmohl (Eds.), *Handbook Transdisciplinary Learning* (pp. 155–164). *Higher Education: University Teaching & Research*. transcript publishing.

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. Ashgate Publishing Limited. https://archive.org/details/reflectivepracti0000scho

Smith, P., Geng, G., & Black, P. (2017). Teachers as reflective practitioners. In G. Geng, P. Smith, & P. Black (Eds.), *The challenge of teaching: Through the eyes of pre-service teachers* (pp. 25–32). Springer.

Sonntag, M., Rueß, J., Ebert, C., Friederici, K., Schilow, L., & Deicke, W. (2017). *Forschendes Lernen im Seminar: Ein Leitfaden für Lehrende* (2nd rev. ed.). *Neue Lehre – Neues Lernen. Bologna. LAB*. Humboldt-Universität zu Berlin.

Sun, Y., & Doman, E. (2018). Peer assessment. In J. I. Liontas (Ed.), *The TESOL encyclopedia of English language teaching* (pp. 1–7). Wiley-Blackwell.

Tai, J., Bearman, M., Gravett, K., & Molloy, E. (2023). Exploring the notion of teacher feedback literacies through the theory of practice architectures. *Assessment & Evaluation in Higher Education*, *48*(2), 201–213. https://doi.org/10.1080/02602938.2021.1948967

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Harvard University Press.

Winchell, Z. (2018). *E-portfolios and their uses in higher education*. Wiley Education Services. https://ctl.wiley.com/e-portfolios-and-their-uses-in-higher-education/

Winstone, N. E., & Carless, D. (2020). *Designing effective feedback processes in higher education: A learning-focused approach*. Society for Research into Higher Education (SRHE). Routledge.

Wisniewski, B., Zierer, K., & Hattie, J. (2020). The power of feedback revisited: A meta-analysis of educational feedback research. *Frontiers in Psychology*, *10*(Article 3087), 1–14. https://doi.org/10.3389/fpsyg.2019.03087

Wood, J. M. (2019). *A dialogic, technology-mediated approach to supporting feedback engagement in a higher education context: Perceived effects on learners' feedback recipience*. Dissertation submitted to the University College London, Institute of Education. https://discovery.ucl.ac.uk/id/eprint/10090843/1/Wood_000_Thesis.pdf

Wood, J. M. (2022). Making peer feedback work: The contribution of technology-mediated dialogic peer feedback to feedback uptake and literacy. *Assessment & Evaluation in Higher Education*, *47*(3), 327–346. https://doi.org/10.1080/02602938.2021.1914544

Zhan, Y. (2022). Developing and validating a student feedback literacy scale. *Assessment & Evaluation in Higher Education*, *47*(7), 1087–1100. https://doi.org/10.1080/02602938.2021.2001430

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